



**Faculty of Cognitive Sciences and Human Development**

**EXPLORING THE IMPLEMENTATION OF SAFETY CULTURE IN THE  
CONSTRUCTION INDUSTRY IN SELANGOR: A QUALITATIVE STUDY**

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**Bachelor of Science with Honours  
(Human Resource Development)  
2020**

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Final Year Project Report

Masters

PhD

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Chung Shee Ting

This project is submitted  
in partial fulfilment of the requirements for a  
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The project entitled ‘Exploring the Implementation of Safety Culture in the Construction Industry in Selangor: A Qualitative Study’ was prepared by Chung Shee Ting and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Science with Honours (Human Resource Deveopment).

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**A**

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## **ABSTRACT**

### **EXPLORING THE IMPLEMENTATION OF SAFETY CULTURE IN THE CONSTRUCTION INDUSTRY IN SELANGOR: A QUALITATIVE STUDY**

*Chung Shee Ting*

This study aims to explore the implementation of safety culture in the construction industry in Selangor. More specifically, this study determined the importance of safety culture perceived by the construction employees, discussed the challenges in creating and maintaining safety culture, investigated the strategies to improve the implementation of safety culture, and identified the ways of improved safety training. A case study design was adopted and the interview was used as an instrument to collect data for this study. Purposive sampling was applied in order to get the suitable informants for this study. The findings of this study revealed the importance of safety culture to avoid accidents and incidents, reduce extra expenses as well as to increase organizational productivity and performance among the construction supervisor in Selangor. Challenges to creating and maintaining safety culture were also identified, including the individual difference, lack of communication, and business priorities. Finally, the findings also found few strategies for the organization to improve the implementation of safety culture as well as safety training improvement.

*Keywords:* Safety Culture, Safety Training, Construction Industry

## **ABSTRAK**

### **MENEROKA PELAKSANAAN BUDAYA KESELAMATAN DALAM INDUSTRI PEMBINAAN DI SELANGOR: KAJIAN KUALITATIF**

*Chung Shee Ting*

Kajian ini bertujuan untuk meneroka pelaksanaan budaya keselamatan dalam industri pembinaan di Selangor. Kajian ini turut bertujuan mengenal pasti kepentingan budaya keselamatan yang dirasakan oleh pekerja pembinaan, membincangkan cabaran dalam mewujudkan dan mengekalkan budaya keselamatan, menyelidiki strategi untuk meningkatkan pelaksanaan budaya keselamatan, dan mengenal pasti cara-cara peningkatan latihan keselamatan. Kajian kes digunakan untuk melaksanakan kajian ini dan temubual digunakan sebagai instrumen untuk mendapatkan data untuk kajian ini. Persampelan purposif digunakan untuk mendapatkan informan yang paling sesuai untuk kajian ini. Penemuan kajian ini telah mendedahkan kepentingan budaya keselamatan untuk mengelakkan kemalangan dan insiden, mengurangkan perbelanjaan tambahan serta meningkatkan produktiviti dan prestasi organisasi. Cabaran untuk menciptakan dan mempertahankan budaya keselamatan juga dikenalpasti, termasuk perbezaan individu, kurangnya komunikasi, dan keutamaan perniagaan. Akhir sekali, dapatan kajian ini juga menemui beberapa strategi bagi organisasi untuk meningkatkan pelaksanaan budaya keselamatan dan juga peningkatan latihan keselamatan.

*Kata kunci:* Budaya Keselamatan, Latihan Keselamatan, Industri Pembinaan

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Background of Study**

This research aims to explore the implementation of safety culture in the construction industry in Selangor. This research focused on how to implement the construction safety culture improve the safety performance among employees. Nowadays, Safety and Health is an important and common area that should be concerned in all sector. According to the Department of Occupational Safety and Health, DOSH (2019), the number of fatal accidents in Malaysia was 3246 cases in 2017, and it increases to 5031cases in 2018 which greater increase around 1,785 cases in a year. These statistics showed that the organization did not focus more on organization safety culture and less concerned on the safety and health of construction employees. There are much organization be concerned about the productivity and job performance of employees. However, they neglected to develop a safety culture for employees to enhance organizational commitment as well as employees' job satisfaction.

In 2018, the Occupational Statistics by sector from the DOSH (2019), showed manufacturing sectors with the highest number of fatal accidents in Malaysia. At the same time, construction sectors often cause fatal accidents and most of them are dead in the incidents.



SECTOR	PD	DEATH	NPD	TOTAL
Hotel and Restaurant	2	1	120	123
Utilities (Electricity, Gas, Water and Sanitary Service)		5	168	173
Finance, Insurance, Real Estate and Business Services	5	22	190	217
Construction	8	118	106	232
Transport, Storage and Communication	1	12	124	137
Manufacturing	197	62	2969	3228
Wholesale and Retail Trade	3	1	69	73
Public Services and Statutory Authorities	1	9	48	58
Mining and Quarrying	3	4	34	41
Agriculture, Forestry and Fishery	14	26	709	749
<b>TOTAL</b>	<b>234</b>	<b>260</b>	<b>4537</b>	<b>5031</b>

Source: Department of Occupation Safety & Health (2019). *Occupation accidents statistics*.

Figure 1. 1 Occupational statistics by sector 2018

Construction industry exposed hazardous working conditions and with higher risks of death in the workplace. This is because it is considered unsafe the forms of work involved in the construction industry. Hence, employees need higher safety awareness to avoid incidents. Fang and Wu (2013) supported that the role and effect of the safety culture on safety performance attracts considerable attention from construction practitioners and academics. According to Geller (2001a), a positive safety culture required a collaborative relationship between management and staff in order to enhance the safety of all staff members. Therefore, this study will explain the implementation of safety culture significant for both the employer and employees in construction sector.

## 1.1 Problem Statement

For developing countries, construction safety and health are not appropriate and adequately powerful. Bavafa et al. (2016) stated that the construction organization in Iran are barely focused on the idea of safety. Malaysia also a country still developing and there are crucial safety issues in the construction sector that had a greater number of accidents. The poor safety record showed the safety issues have been neglected in the construction sector in Malaysia. The SOCSO report indicated that the number of fatal construction accidents has increased dramatically between 2009 and 2014 by 231.9% in the last five years. DOSH also reported an increase of 125.8% in the number of fatal injuries at a construction site from 2009 to 2015 and most of the accidents are mainly due to workplace environment, organization management, human factors, hazardous equipment and environmental factors (Abdul Rahim Abdul Hamid, Noor Azmi, Eeydzah Aminudin, Ramadhansyah Putra Jaya, Rozana Zakaria, Zawawi... Saar, 2019). Surprisingly, in construction sites, the number of work-related deaths is significantly higher than in other sectors. However, the government has fewer safety priorities in the construction sector and leads most people to have little knowledge of safety (Shamsuddin, Ani, Ismail & Ibrahim, 2015). In fact, the latest report of Occupational Accident Statistics by state from January to June 2019 showed that Selangor has the highest number of accidents in Malaysia. Based on the DOSH records, the number of accidents in construction has increased by 13.6% from 428 cases in 2015 to 486 cases in 2019. Thus, this is an important indicated for the study to be conducted. How does the construction worker perceived safety culture will be investigated.

The issues of safety culture have been studied by several researchers in the near decades. According to Shamsuddin et al. (2015), the cause of the construction accidents is a multifaceted feeling attributed primarily to the carelessness of employees, workers' failure to comply with workplace policies, operates facilities without safety equipment, poor management in the workplace, rigorous work operation, poor employee awareness and skills, failure apply PPE and poor safety attitude of employees. They also concluded that employees' safety awareness should be developed in the construction industry to decrease fatal accidents. However, implementing the safety culture in the construction sector can be very challenging. Biggs, Banks, Davey and Freeman (2013) figured out the barriers in creating the safety culture which are business priorities, workforce issues, the change process, industry and issues. Then, management and financial problems with subcontractors, excessive paperwork, the challenges of "Keeping it fresh", low levels of safety leadership competencies, and transience of the workforce are also the barriers in implementing the safety culture. From the findings, it can be concluded that the implementation of construction safety culture should have various challenges. Thus, it also considered as major issues for the construction sector. Therefore, this research explored the challenges in creating and maintaining the safety culture.

Similarly, Biggs et al. (2013) also discovered that the factors for positive safety culture include organizational factor, leadership factors, workforce factors, leadership commitment, safety communication, and workers' involvement by safety leaders. Additionally, other major findings in the study done by Wamuziri (2013) has discussed the factors leading to positive and negative construction safety cultures including factors of organization, individual, team, project,

management and supervision. On top of that, previous literature reviews by Ji, Wei & Chen (2019) identified the essential factors that influence safety performance by formulating effective strategies for enhancing construction safety. Unfortunately, how these strategies are operationalized is yet to be future explored. The increase in accident rates in the construction industry especially in Malaysia raises concerns about the efficacy of those strategies. Therefore, this study examined methods for strengthening the implementation of the safety culture in the construction industry.

Lastly, literature reviews showed that previous studies mostly focus on the performance on construction sites and on ways of reducing the incident number and severity. The study of Mohd Nasrun Mohd Nawawi, Siti Halipah Ibrahim, Rohaida Affandi, Nor Azalina Rosli & Fazlin Mohamad Basri (2016) stated that the most commonly reported type of accident is fall, while lack of employee safety awareness and inadequate safety and health concerns are the major problem facing in the construction industry that leads to poor performance in safety. The study of Fang, Wu and Wu (2015) stated that the supervisor's training and preventive action have direct effects on the monitoring environment and the safety climate involvement of workers. Moreover, creating workplace safety training will concentrate more on increasing awareness of safety. In general, safety training practices is one of the important strategies for the prevention of workplace accidents. However, the study on the practices of safety training from the perception of safety personnel is being rarely investigated (Demirkesen & Arditi, 2015). Therefore, this study investigated ways to improve safety training for construction safety culture.

## **1.2 Research Objectives**

### **1.2.1 General Objective**

To explore the implementation of safety culture in the construction industry in Selangor.

### **1.2.2 Specific Objectives**

- i. To identify the importance of safety culture perceived by the construction worker in Selangor.
- ii. To discuss the challenges of creating and maintaining a safety culture in the construction industry of Selangor.
- iii. To investigate the strategies to improve the implementation of safety culture in the construction industry in Selangor.
- iv. To identify the ways of improved safety training in Selangor.

## **1.3 Research Questions**

- i. What the importance of safety culture perceived by the construction workers in Selangor?
- ii. What are the challenges of creating and maintaining a safety culture in the construction industry of Selangor?
- iii. What are the strategies to improve the implementation of safety culture in the construction industry in Selangor?
- iv. What are the ways to enhance safety training in Selangor?

## **1.4 Significance of Study**

In Malaysia, developing a positive safety culture should focus on the entire organization, particularly the construction industry. A safety culture can directly or indirectly reduce occupational incident in the workplace.

This research is significant because the findings assisted to strengthen the safety policies for the organization to encourage the employees able to work in positive safety culture. The improving of safety policies for the organization in creating a safe working environment will enhance the organizational commitment to the employees. The organization with a higher level of commitment will improve employees job satisfaction and easy to achieve organization goal. In addition, the organization safety policies and procedure will enhance the safety awareness of employees. Therefore, the rate of occupational accidents in the organization will also decrease.

Furthermore, this study provided important knowledge about the implementation of safety culture for human resource management practitioners. The findings assisted to improve the development of safety training and safety culture. The barriers and recommendations provided by safety personnel enable human resource management practitioners to have guidance to develop better safety practices and safety culture in the organization. Moreover, proper safety practice such as safety training can improve the employees' performance and job satisfaction in order to eliminate fatal accidents in the workplace.

Lastly, this research used as a reference and enhancement for future research by other researchers. Apart from that, the findings of the research could be driven for future researchers as

a literature review and also used as guidelines in the construction organization to avoid or mitigate accidents in the workplace.

### **1.5 Limitations of the Study**

This research has some limitations. Firstly, the limitations in the study is the population involved those employees who are working in the construction industry in Selangor only. The research limited to the population only from Selangor which in West Malaysia. However, the workers who work in the construction industry from other states of Malaysia have not been included in this study. Hence, the findings of this research may be relevant to that geographical area but not representative of other areas in Malaysia. The findings also not befitting for other settings.

Secondly, the limitation of this study is the limitation on the industry. The sample involved in the research is from the selected employees from the construction industry. There are various sectors are also involved in fatal accidents at workplace and safety culture is required. Therefore, the findings found may not be applied to other industry manufacturing, agriculture, hotel and restaurant and so on.

Thirdly, the verification of the data only done through phone and email because the researcher was currently in Kuching, Sarawak. However, the research was conducted in the Selangor, Kuala Lumpur. Therefore, there was a limitation of the travel between state to state for data verification.

## **1.6 Definitions of Terms**

### **1.6.1 Safety Culture**

According to Lee (1996), as cited in Guldenmund (2000), the safety culture of an organization is the product of the beliefs, attitudes, expectations, competencies and behaviours of individuals and groups that will impact employees behaviour and attitude as well as increase or decrease the occupational injury rate. Safety culture serves as a sub-face of the corporate culture affecting employees' attitudes and actions to the ongoing safety performance of an organization (Cooper, 2000; Mohamed, 2003). The study by Muñiz et al. (2007) also defined that safety culture is an organization that shares the same set of values, perceptions, attitudes and behavioural patterns regarding safety. A collection of policies, processes and procedures enforced at all levels of the company to minimize the exposure of workers to workplace hazards and offer dedication and a high degree of concern to avoid injuries and illness. In this study, the safety culture is referred to as the organization culture that shared same values, attitudes, and behaviour towards safety in a construction organization to decrease the number of accidents as well as increase the employees' job satisfaction.

### **1.6.2 Safety Performance**

According to Li, Ning, and Chen (2018) defined the safety performance is a major concern in high-rise building construction with the high-altitude operation and deep-rooted digging resulting in significantly higher injury rates and more serious injuries than in medium or low-